



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
1200 Sixth Avenue  
Seattle, WA 98101

WA2813  
7/11/03  
146

July 11, 2003

Reply To  
Attn Of: WCM -121

William Johnson  
Earle M. Jorgensen Company  
3050 East Birch Street  
Brea, CA. 92821

**Re: Administrative Order on Consent for Sampling and Analysis at  
Jorgensen Forge Property**

Dear Mr. Johnson;

Enclosed please find a copy of the signed Administrative Order on Consent for the sampling and analysis to be conducted at the Jorgensen Forge property in Seattle, Washington. Mr. Rick Albright signed the order for the U.S. Environmental Protection Agency (EPA) on July 10, 2003.

EPA appreciates your willingness to conduct the necessary environmental sampling at the Jorgensen Forge property.

If you any technical questions, please call myself at (206)553-2851, or Ms. Anna Filutowski at (206)553-5122. If you have any legal questions, please call Mr. Charles Ordine at (206)553-1504.

Sincerely,

Howard Orlean  
Corrective Action Coordinator

Enclosure

cc: Anna Filutowski (w/ encl.), WCM-126  
Charles Ordine (w/encl), ORC-155  
Peter Jewett (w/encl), Farallon Consulting  
Bill Joyce (w/encl), Ogden Murphy Wallace  
Tod Gold (w/encl), Ogden Murphy Wallace  
Kim Maree Johannessen (w/encl), Johannessen & Associates  
David Templeton (w/encl), Anchor Environmental

USEPA RCRA



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5 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
6 REGION 10  
7

8 IN THE MATTER OF:

9 EARLE M. JORGENSEN COMPANY,

) U.S. EPA Docket No.

) CERCLA 10-2003-0111  
10 )

11 Respondent,

12 Proceeding Under Sections 106, 122(a),  
13 and 122(d)(3) of the Comprehensive  
14 Environmental Response, Compensation,  
and Liability Act as amended  
(42 U.S.C §§ 9606, 9622(a),  
9622(d)(3)).  
15

16 ADMINISTRATIVE ORDER ON CONSENT  
17 FOR SAMPLING AND ANALYSIS  
AT JORGENSEN FORGE PROPERTY

18 I. INTRODUCTION

19 1. This Administrative Order on Consent (Order) is issued by the United States  
20 Environmental Protection Agency (EPA) and entered into voluntarily by Earle M. Jorgensen  
21 Company (Respondent). This Order directs Respondent to conduct an investigation, including  
22 sampling, to determine whether sediments in the Duwamish Waterway adjacent to the  
23 Jorgensen Forge site, which is located at 8531 East Marginal Way South in Seattle,  
24 Washington ("Site"), have been impacted by current or historical operations at the Site. The  
25 work performed by Respondent will supplement investigations performed by EPA and other  
26 parties pursuant to two prior Orders (1994 Order under Section 3008(h) of Resource  
27 Conservation and Recovery Act (RCRA) issued by EPA and entered into voluntarily by The  
28 Boeing Company (Boeing) and the 2000 Lower Duwamish Waterway (LDW) Superfund Site

1 Order under Sections 104, 122(a), 122(d)(3) of the Comprehensive Environmental Response,  
2 Compensation, and Liability Act (CERCLA) and the Washington State Model Toxics Control  
3 Act (MTCA), ch. 70.105D RCW issued by EPA and the Washington Department of Ecology  
4 and entered into voluntarily by Boeing, The Port of Seattle, the City of Seattle, and King  
5 County.

## 6 II. JURISDICTION

7 2. This Order is issued under the authority vested in the President of the United States  
8 by Sections 106(a), 122(a) and 122(d)(3) of the Comprehensive Environmental Response,  
9 Compensation, and Liability Act (CERCLA) of 1980, as amended, 42 U.S.C. § 9606(a)  
10 9622(d)(3). This authority was delegated to the Administrator of EPA on January 23, 1987,  
11 by Executive Order 12580, 52 Fed. Reg. 2926 (1987), further delegated to EPA Regional  
12 Administrators on September 13, 1987, by EPA Delegation No. 14-14-B, and redelegated in  
13 Region 10 for the purposes of this Order to the Director of Waste and Chemicals Management  
14 Office.

15 3. Respondent agrees to undertake all actions required by this Order. In any action  
16 by EPA or the United States to enforce this Order, Respondent consents to and agrees not to  
17 contest the authority or jurisdiction of EPA to issue or enforce this Order, and agrees not to  
18 contest the validity of this Order or its terms.

## 19 III. PARTIES BOUND

20 4. This Order shall apply to and be binding upon EPA and upon Respondent, its  
21 successors and assigns. The signatories to this Order certify that they are authorized to  
22 execute and legally bind the parties they represent to this Order. No change in the ownership  
23 or corporate status of Respondent or any facility owned or operated by Respondent shall alter  
24 Respondent's responsibilities under this Order.

25 5. Respondent shall provide a copy of this Order to any corporate successors before  
26 assets in a corporate acquisition are transferred. Respondent shall provide a copy of this  
27 Order to all contractors, subcontractors, laboratories, and consultants retained to conduct any  
28 work required by this Order, within fourteen days after the effective date of this Order or the



1 date of retaining such services, whichever is later. Respondent shall condition any such  
2 contracts upon satisfactory compliance with this Order. Notwithstanding the terms of any  
3 contract, Respondent is responsible for compliance with this Order and for ensuring that its  
4 subsidiaries, agents, contractors and consultants performing any Work under this Order  
5 comply with this Order.

#### 6 IV. STATEMENT OF PURPOSE

7 6. The objectives of EPA and Respondent are to provide sufficient environmental data  
8 to determine whether the Site is, or has been, a source of contamination to sediments in the  
9 Duwamish Waterway adjacent to the Site. To the extent the Site is determined to be a source  
10 of contamination to sediments, Respondent will investigate the nature and extent of  
11 contamination and the threat to public health, welfare or the environment from the release or  
12 threatened release of such contamination. The results of Respondent's investigation will  
13 supplement the data collected by Boeing during its RCRA Facility Investigation (RFI)  
14 conducted at the Boeing Plant 2 facility pursuant to the RCRA 3008(h) AOC, including data  
15 that will be collected by Boeing while this Order is in effect.

16 7. The activities conducted under this Order are subject to approval by EPA, and shall  
17 provide data to support EPA's corrective action and remedial decision making processes,  
18 including the production of a Statement of Basis that is consistent with RCRA and a Record  
19 of Decision (ROD) that is consistent with CERCLA and the National Oil and Hazardous  
20 Substances Pollution Contingency Plan, also known as the National Contingency Plan (NCP),  
21 40 C.F.R. Part 300. All work performed pursuant to this Order shall be in compliance with  
22 all applicable EPA guidance, policies, and procedures.

#### 23 V. FINDINGS OF FACT

24 8. The Site is located at 8531 E. Marginal Way S. in Seattle, Washington in an  
25 industrial area on the east bank of the Duwamish Waterway (Figure 1). The Site is adjacent  
26 to the Boeing Plant 2 facility to the north and the Boeing Issacson facility to the south. The  
27 primary activity at the Site is manufacturing of precision machined forgings from material  
28 grades that include carbon, low alloy steels, stainless steel, aluminum alloys, titanium alloys,



1 and nickel based alloys. The Site includes an integrated melt shop, forging operations, heat  
2 treating, and machining operations.

3 9. The bank along the northwestern portion of the Site has been constructed with a  
4 fill material of unknown origin and composition.

5 10. A stormwater collection and conveyance system that discharges to the Duwamish  
6 Waterway is located at the Site. There are at least seven identified stormwater discharge  
7 outfalls along the shoreline of the Site (Figure 2). Outfalls 1, 2, 3, 4 and 5 are subject to a  
8 National Pollution Discharge Elimination System (NPDES) permit issued by the Washington  
9 State Department of Ecology (Ecology) pursuant to the Clean Water Act. EPA has no  
10 information on outfalls 6, 7 and 8. King County Industrial Waste combined storm/sewer  
11 conveyance pipe(s) are located underground along the northern boundary of the Site and  
12 discharge to the Duwamish Waterway from the northwest corner of the Site.

13 11. A Preliminary Site Assessment conducted at the Site in 1990 by Respondent  
14 documented hazardous substances in soil and groundwater including total petroleum  
15 hydrocarbons, lead, chromium and volatile organic compounds (VOCs).

16 12. From 1992 through 1998, under the Ecology Voluntary Cleanup Program,  
17 Respondent conducted remedial investigations, feasibility studies and cleanup at four (4) areas  
18 of the Site. Area 1 includes the Hollowbore Area where lathes and associated cutting oil are  
19 located. Area 1 investigations determined that groundwater and subsurface were  
20 contaminated with hydrocarbons from cutting oil. A light non-aqueous phase liquid (LNAPL)  
21 was found in groundwater beneath Area 1. A groundwater pump and treat system was  
22 installed to contain the LNAPL in Area 1. Area 2 is the location of an oil/water separator.  
23 LNAPL from releases of diesel oil and hydraulic fluid was found beneath Area 2. Area 3  
24 includes the area where three (3) underground storage tanks (USTs) were located.  
25 Groundwater contamination detected beneath Area 3 includes VOCs. An air sparging/vapor  
26 extraction system was installed and operated in Area 3. Area 4 included several USTs that  
27 have been closed in place.

1 13. Contamination at the adjacent Boeing Plant 2 facility in soil, groundwater and  
2 sediment has been characterized in the 1998 RFI Report. Hazardous substances documented  
3 during the RFI include: lead, mercury, chromium, cadmium, arsenic, copper, zinc, VOCs,  
4 including trichloroethane (TCE) and vinyl chloride, and polychlorinated biphenyls (PCBs).  
5 Boeing is currently conducting an investigation of the nature and extent of releases of PCBs  
6 from an electric transformer located on the Boeing Plant 2 facility adjacent to the northwest  
7 corner of the Site. The investigation will include collection of soil and groundwater samples  
8 on the northwest area of the Site as well as sediment samples in the Duwamish Waterway  
9 located adjacent to the northwest area of the Site.

10 14. The 2001 Phase I CERCLA remedial investigation submitted under the 2000  
11 LDW Superfund Site Order found hazardous substances in sediments of the Lower Duwamish  
12 Waterway including, mercury, arsenic, cadmium, copper, zinc, polycyclic aromatic  
13 hydrocarbons (PAHs), and PCBs.

14 15. Respondent was the owner/operator of the Site from 1965 to 1992. Jorgensen  
15 Forge Corporation (Jorgensen Forge) has owned and operated the Site from 1992 to the  
16 present.

17 16. In December 2000, EPA proposed the LDW to be added to the National Priorities  
18 List (NPL) of high priority cleanup sites. The LDW was placed on the NPL pursuant to  
19 Section 105 of CERCLA, 42 U.S.C. § 9605, on September 13, 2001, at 66 Fed. Reg. 47583.

20 17. The Site is within the boundaries of the LDW NPL site.

#### 21 VI. CONCLUSIONS OF LAW AND DETERMINATIONS

22 18. The Site is a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. §  
23 9601(9).

24 19. Wastes and constituents thereof found at the Site identified in paragraphs 11 and  
25 12 above, are "hazardous substances" as defined in Section 101(14) of CERCLA, 42 U.S.C.  
26 § 9601(14), or constitute any pollutant or contaminant which may present an imminent and  
27 substantial danger to public health or welfare within the meaning of Section 104(a)(1) of  
28 CERCLA, 42 U.S.C. § 9604(a)(1).



20. The presence of hazardous substances at the Site and the past, present or potential migration of hazardous substances to and from the Site, constitute an actual and/ or threatened "release" as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

21. Respondent is a "person" as defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

22. Respondent has been an owner and/or operator of the Site at the time of a release. Respondent has voluntarily consented to perform supplemental work for the Site and is agreeing to place itself under CERCLA jurisdiction to perform such work under this Order.

23. The work to be performed under this Order, is necessary to protect the public health or welfare or the environment, is in the public interest, will expedite effective remedial action and minimize litigation, and is consistent with CERCLA and the NCP.

## VII. NOTICE

24. By providing a copy of this Order to the state of Washington, EPA is notifying the state that this Order is being issued and that EPA is the lead agency for coordinating, overseeing, and enforcing the action required by the Order.

## VIII. WORK TO BE PERFORMED

25. Respondent has selected Farallon Consulting L.L.C. (Farallon) as its contractor. All work performed under this Order shall be under the direction and supervision of Farallon or its qualified replacement. Within thirty days after the effective date of this Order, and before the work outlined below begins, Respondent shall notify EPA in writing of the names, titles, and qualifications of the personnel, including contractors, subcontractors, consultants and laboratories to be used in carrying out such work. The qualifications of the persons undertaking the work for Respondent shall be subject to EPA review, for verification that such persons meet minimum technical background and experience requirements. If EPA disapproves in writing of any person's technical qualifications, Respondent shall notify EPA of the identity and qualifications of replacement(s) within ten days of the written notice. If EPA subsequently disapproves of the replacement(s), EPA may terminate this Order and seek costs and penalties from Respondent. During the course of implementation of this Order,

1 Respondent shall notify EPA in writing of any changes or additions in the personnel used to  
2 carry out such work, providing their names, titles, and qualifications. EPA shall have the  
3 same right to approve changes and additions to personnel as it has hereunder regarding the  
4 initial personnel.

5 26. Respondent shall conduct activities and submit deliverables as provided in the  
6 attached Statement of Work (SOW), which is incorporated by this reference into this Order.  
7 All work performed under this Order shall be in accordance with the schedules herein, and  
8 in full accordance with the SOW and any deliverables submitted to and approved with or  
9 without modification by EPA.

10 27. EPA may comment on, modify and/or direct changes in deliverables. Respondent  
11 must fully correct all deficiencies and incorporate and integrate all information and comments  
12 supplied by EPA either in subsequent or resubmitted deliverables.

13 28. If Respondent amends or revises a submittal upon receipt of EPA comments,  
14 if EPA subsequently disapproves of the revised submittal, and/or if subsequent submittals do  
15 not fully reflect EPA's directions for changes, EPA may seek stipulated or statutory penalties,  
16 and/or any other appropriate relief.

17 29. All approvals of deliverables by EPA must be in writing. Neither failure of  
18 EPA to expressly approve or disapprove of Respondent's submissions, nor the absence of  
19 comments, shall be construed as approval by EPA. Respondent is responsible for preparing  
20 deliverables acceptable to EPA. EPA will provide express approval in writing of  
21 Respondent's deliverables and will indicate with such approval when the time period for the  
22 next work phase begins.

23 30. Respondent shall, prior to any off-site shipment of hazardous substances from the  
24 Site to an out-of-state waste management facility, provide written notification to the  
25 appropriate state environmental official in the receiving state and to EPA's Designated Project  
26 Coordinator of such shipment of hazardous substances. However, the notification of  
27 shipments shall not apply to any such off-site shipments when the total volume of such  
28 shipments will not exceed 10 cubic yards.



1           31. The notification required by the preceding paragraph shall be in writing, and shall  
2 include the following information, where available: (1) the name and location of the facility  
3 to which the hazardous substances are to be shipped; (2) the type and quantity of the  
4 hazardous substances to be shipped; (3) the expected schedule for the shipment of the  
5 hazardous substances; and (4) the method of transportation. Respondent shall notify the  
6 receiving state of major changes in the shipment plan, such as a decision to ship the hazardous  
7 substances to another facility within the same state or to a facility in another state.

8                           IX. MODIFICATION OF SUBMITTALS

9           32. Any modifications to any EPA approved submittal must be approved by EPA in  
10 writing.

11           33. In the event of conditions posing an immediate threat to human health or welfare  
12 or the environment, Respondent shall notify EPA immediately. In the event of unanticipated  
13 or changed circumstances at the Site, Respondent shall notify the EPA Project Coordinator  
14 by telephone within 24 hours of discovery of the unanticipated or changed circumstances. In  
15 addition to the authorities in the NCP, if EPA determines that the immediate threat or the  
16 unanticipated or changed circumstances warrant changes in the SOW or a work plan, EPA  
17 shall modify or amend the SOW or work plan in writing accordingly. Respondent shall  
18 perform the work plan as modified or amended.

19                           X. QUALITY ASSURANCE

20           34. Respondent shall assure that work performed, samples taken and analyses  
21 conducted conform to the requirements of the SOW and guidances identified therein.  
22 Respondent will assure that field personnel used by Respondent are properly trained in the use  
23 of field equipment and in chain of custody procedures.

24                           XI. SAMPLING, ACCESS, AND DATA AVAILABILITY/ADMISSIBILITY

25           35. All final results of sampling, tests, modeling or other data generated by  
26 Respondent, or on Respondent's behalf, during implementation of this Order, that conform  
27 to the quality assurance/quality control (QA/QC) requirements set forth in the SOW or any  
28

1 EPA-approved plans shall be submitted to EPA. Raw data or original laboratory reports shall  
2 be provided to EPA upon request.

3 36. Respondent shall allow EPA authorized representatives to collect split or  
4 duplicate samples of any samples collected by Respondent in implementing this Order.

5 37. At all reasonable times, EPA and its authorized representatives shall have the  
6 authority to enter and freely move about all property over which Respondent has possession  
7 or control at the Site and at off-Site areas where work, if any, is being performed, for the  
8 purposes of inspecting conditions, activities, the results of activities, records, operating logs,  
9 and contracts related to the Jorgensen Forge site or Respondent and its contractors pursuant  
10 to this Order; reviewing the progress of Respondent in carrying out this Order; conducting  
11 tests as EPA deems necessary; using a camera, sound recording device or other documentary  
12 equipment; and verifying the data submitted to EPA by Respondent. Respondent shall allow  
13 these persons to inspect and copy all records, files, photographs, documents, sampling and  
14 monitoring data, and other writings created pursuant to this Order. Nothing herein shall be  
15 interpreted as limiting or affecting EPA's right of entry or inspection authority under law.

16 38. Respondent may assert a claim of business confidentiality covering part or all of  
17 the information submitted to EPA pursuant to this Order under 40 C.F.R. § 2.203, provided  
18 such claim is allowed by Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7). This claim  
19 shall be asserted in the manner described by 40 C.F.R. § 2.203(b) and substantiated at the time  
20 the claim is made. Information determined to be confidential by EPA will be given the  
21 protection specified in 40 C.F.R. Part 2. If no such claim accompanies the information when  
22 it is submitted to EPA, it may be made available to the public without further notice to  
23 Respondent. Respondent agrees not to assert confidentiality claims with respect to any data  
24 generated pursuant to this Order related to Site conditions, sampling, or monitoring.

25 39. In entering into this Order, Respondent waives any objections to any data gathered  
26 or generated pursuant to this Order that have been verified according to the quality  
27 assurance/quality control (QA/QC) procedures required by the SOW or any EPA-approved  
28 plans in any proceeding brought by the United States to enforce this Order.



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(a) Documents submitted to EPA (4 copies):

(b) Documents submitted to Respondent (one copy each to):

William S. Johnson  
Earle M. Jorgensen Company  
3050 E. Birch Street  
Brea, CA 92891

43. EPA's Project Coordinator shall have the authority lawfully vested in a Remedial Project Manager (RPM) and On-Scene Coordinator (OSC) by the NCP. In addition, EPA's Project Coordinator shall have the authority consistent with the NCP, to halt any work required by this Order, and to take any necessary response action when s/he determines that conditions at the Site may present an immediate endangerment to public health or welfare or

1 the environment. Absence of the EPA Project Coordinator from the Site shall not be cause  
2 for stoppage or delay of any Work.

### 3 XIII. OTHER APPLICABLE LAWS

4 44. Respondent shall comply with all applicable laws when implementing this Order.  
5 No local, state or federal permit shall be required for any portion of the work conducted  
6 entirely on site contemplated by this Order in accordance with Section 121(e)(1) of CERCLA,  
7 42 U.S.C. § 9621(e)(1).

### 8 XIV. RECORD PRESERVATION

9 45. All records and documents in Respondent's possession which relate to the data  
10 generated pursuant to this Order shall be preserved for a minimum of ten years after  
11 completion of the work required under this Order. Respondent shall acquire and retain copies  
12 of all such documents in the possession of its employees, agents, accountants, contractors, or  
13 attorneys. After this ten year period, Respondent shall notify EPA at least ninety days before  
14 the documents are scheduled to be destroyed. If EPA requests that the documents be saved,  
15 Respondent shall, at no cost to EPA, give EPA the documents or copies of the documents.

### 16 XV. DISPUTE RESOLUTION

17 46. Any disputes arising under this Order shall be resolved as follows: Respondent  
18 shall notify EPA in writing of any dispute or objection within fourteen days after such matter  
19 arises. Respondent's written notification shall define the dispute and state the basis of  
20 Respondent's position. EPA and Respondent shall then have fourteen days to reach an  
21 agreement in writing. If an agreement is not reached within fourteen days, Respondent may  
22 request a determination by the EPA Region 10 Office of Waste and Chemicals Management  
23 Director. Respondent shall proceed in accordance with the Director's decision regarding all  
24 matters in dispute, regardless of whether Respondent agrees with the decision. If Respondent  
25 does not perform the work in accordance with the Director's decision, EPA may enforce the  
26 decision, and/or seek penalties, and/or any other appropriate relief.

27 47. Respondent is not relieved of its obligations to perform and conduct activities  
28 and submit deliverables on the schedule set forth in the SOW or any EPA approved



1 deliverable, while a matter is pending in dispute resolution. The invocation of dispute  
2 resolution does not stay stipulated penalties under this Order.

3 XVI. DELAY IN PERFORMANCE/STIPULATED PENALTIES

4 48. For each day Respondent fails to complete a deliverable in a timely manner or  
5 fails to produce a deliverable of acceptable quality, or otherwise fails to perform in accordance  
6 with the requirements of this Order, Respondent may, at EPA's discretion, be liable for  
7 stipulated penalties. Penalties begin to accrue on the day that performance is due or a  
8 violation occurs, and extend through the period of correction. If a revised submission by  
9 Respondent is required, stipulated penalties may continue to accrue until a satisfactory  
10 deliverable is produced. EPA will provide written notice for violations that are not based on  
11 timeliness; nevertheless, penalties may accrue from the day a violation commences rather than  
12 on the date of such EPA notification. Payment shall be due within thirty days after receipt of  
13 a demand letter from EPA, unless otherwise agreed to by EPA. EPA may, in its unreviewable  
14 discretion, waive imposition of stipulated penalties.

15 49. If payment pursuant to the preceding paragraph is not timely made, Respondent  
16 shall pay interest on the unpaid balance, which shall begin to accrue on the date of the  
17 violation, at the rate established by the Department of Treasury pursuant to 30 U.S.C. §3717.  
18 Respondent shall further pay a handling charge of one percent, to be assessed at the end of  
19 each thirty-one day period, and a six percent per annum penalty charge, to be assessed if the  
20 penalty is not paid in full within ninety days after it is due.

21 50. Respondent shall make all payments by forwarding a check to:

22 Mellon Bank  
23 U.S. EPA Region X  
ATTN: Superfund Accounting  
24 P.O. Box 360903M  
Pittsburgh, PA 15251

25 Checks should identify the name of the Site (Duwamish River -Jorgensen), Site identification  
26 number, and the title of this Order. A copy of the check and/or transmittal letter shall be  
27 forwarded to the EPA Project Coordinator.

28

1 51. a. For failure to timely submit a deliverable (except as provided in Paragraph 52  
2 below), or other violation of this Order, stipulated penalties shall accrue in the amount of  
3 \$500 per day, per violation, for the first seven days of noncompliance; \$1000 per day, per  
4 violation, for the eighth through fourteenth day of noncompliance; \$2,000 per day, per  
5 violation, for the fifteenth day through the thirtieth day; and \$5,000 per day, per violation,  
6 following the thirty-first day.

7 b. For the Monthly Progress Reports, stipulated penalties shall accrue in the  
8 amount of \$250 per day, per violation, for the first week of noncompliance; \$500 per day, per  
9 violation, for the 8<sup>th</sup> through 14<sup>th</sup> day of noncompliance; \$1,000 per day, per violation, for the  
10 15<sup>th</sup> day through the 30<sup>th</sup> day; and \$2,500 per day, per violation, following the thirty-first day.

11 52. Respondent may dispute EPA's right to the stated amount of penalties by invoking  
12 the dispute resolution procedures above. Penalties may, at EPA's discretion, accrue but need  
13 not be paid during the dispute resolution period. If Respondents do not prevail upon  
14 resolution, all penalties shall be due within thirty days of resolution of the dispute. If  
15 Respondent prevails upon resolution, no penalties shall be paid.

16 53. The stipulated penalties provisions do not preclude EPA from pursuing any other  
17 remedies or sanctions lawfully available to EPA because of Respondent's failure to comply  
18 with this Order.

## 19 XVII. FORCE MAJEURE

20 54. "Force majeure", for purposes of this Order, is defined as any event arising from  
21 causes entirely beyond the control of Respondent or any entity controlled by Respondent,  
22 including their contractors and subcontractors, that delays the timely performance of any  
23 obligation under this Order, notwithstanding Respondent's best efforts to avoid the delay.  
24 The requirement that Respondent exercise best efforts to avoid the delay includes using best  
25 efforts to anticipate any potential force majeure event and best efforts to address the effects  
26 of any potential force majeure event (1) as it is occurring and (2) following the potential force  
27 majeure event, such that the delay is minimized to the greatest extent practicable. Examples  
28 of events that are not force majeure events include, but are not limited to, increased costs or



1 expenses of any work to be performed under this Order or the financial difficulty of  
2 Respondent to perform such work.

3 55. If any event occurs or has occurred that may delay the performance of any  
4 obligation under this Order, whether or not caused by a force majeure event, Respondent shall  
5 notify the EPA Project Coordinator by telephone or, in his/her absence, RCRA Compliance  
6 Unit Manager, Jamie Sikorski, within forty-eight hours of when Respondent knew or should  
7 have known the event might cause a delay. Within seven days thereafter, Respondent shall  
8 provide in writing the reasons for the delay; the anticipated duration of the delay; all actions  
9 taken or to be taken to prevent or minimize the delay; a schedule for implementation of any  
10 measures to be taken to mitigate the effect of the delay; and a statement as to whether, in the  
11 opinion of Respondent, such event may cause or contribute to an endangerment to public  
12 health, welfare or the environment. Respondent shall exercise best efforts to avoid or  
13 minimize any delay and any effects of a delay. Failure to comply with the above requirements  
14 shall preclude Respondent from asserting any claim of force majeure.

15 56. If EPA agrees that the delay or anticipated delay is attributable to force majeure,  
16 the time for performance of the obligations under this Order that are materially affected by the  
17 force majeure event shall be extended accordingly by EPA. An extension of the time for  
18 performance of the obligation directly affected by the force majeure event shall not, of itself,  
19 extend the time for performance of any subsequent obligation.

20 57. To qualify for a force majeure defense, Respondent shall have the burden of  
21 demonstrating by a preponderance of the evidence that the delay or anticipated delay has been  
22 or will be caused by a force majeure event, that the duration of the delay was or will be  
23 warranted under the circumstances, that Respondent did use best efforts to avoid and mitigate  
24 the effects of the delay, and that Respondent complied with the requirements of this Section.

#### 25 XVIII. DISCLAIMER

26 58. By entering into and acting pursuant to this Order, Respondent does not  
27 necessarily agree with EPA's Findings of Fact and Conclusions of Law and does not admit any  
28 liability. Neither this Order, nor Respondent's participation therein, shall be considered an

1 admission of liability and is not admissible in evidence against Respondent in any judicial or  
2 administrative proceeding other than a proceeding by the United States, including EPA, to  
3 enforce this Order or a judgment relating to it. Respondent retains all rights to assert claims  
4 against other potentially responsible parties at the Site.

5 XIX. OTHER CLAIMS

6 59. In entering into this Order, Respondent waives any right to seek reimbursement  
7 pursuant to Section 106(b) of CERCLA, 42 U.S.C. § 9606(b), for work performed pursuant  
8 to this Order. Respondent also waives any right to present a claim under Sections 111 or 112  
9 of CERCLA, 42 U.S.C. §§ 9611 and 9612, for such work. This Order does not constitute any  
10 decision on preauthorization of funds under Section 111(a)(2) of CERCLA. Respondent  
11 further waives all other statutory and common law claims against EPA arising out of  
12 Respondent's implementation of this Order.

13 60. Nothing in this Order shall constitute or be construed as a release from any claim,  
14 cause of action or demand in law or equity against any person or entity for any liability arising  
15 out of or relating in any way to the generation, storage, treatment, handling, transportation,  
16 release, or disposal of any hazardous substances, pollutants, or contaminants found at, taken  
17 to or from the Site.

18 61. Respondent shall bear its costs and attorneys fees.

19 XX. INDEMNIFICATION

20 62. For the duration of this Order, Respondent shall comply with and/or ensure their  
21 contractors/subcontractors comply with all applicable laws and regulations regarding the  
22 provision of employer's liability insurance and workmen's compensation insurance for all  
23 persons performing work on behalf of Respondent in furtherance of this Order.

24 63. Respondent agrees to indemnify and hold the United States, its agencies,  
25 departments, agents, and employees harmless from any and all claims or causes of action  
26 arising from or on account of acts or omissions of Respondent, its employees, agents,  
27 servants, contractors, consultants, receivers, successors, or assigns, in implementing this  
28



1 Order. The United States or any agency or authorized representative thereof shall not be held  
2 as a party to any contract entered into by Respondent in implementing this Order.

3 XXI. REIMBURSEMENT OF OVERSIGHT COSTS

4 64. Upon completion of the work required by this Order, EPA shall give  
5 Respondent an accounting of all oversight costs incurred by EPA for the work required by this  
6 Order, including all pre-issuance preparatory costs from December 1, 2002 to the date of  
7 issuance. Oversight costs shall include all direct and indirect costs, including, but not limited  
8 to, time and travel costs of EPA personnel and associated indirect costs. Any necessary  
9 summaries, including, but not limited to EPA's certified Agency Financial Management  
10 System summary data (SCORPIOS Report), or such other summary as certified by EPA, shall  
11 serve as basis for payment demands. Respondent may review upon request the underlying  
12 EPA oversight cost documentation that is readily available to EPA and which can be readily  
13 provided to Respondent, such as: EPA personnel time sheets; travel authorizations and  
14 vouchers; vouchers for contract payments; EPA contractor monthly invoices, applicable  
15 contract laboratory program invoices, and supporting documentation for miscellaneous  
16 payments. However, if the Respondent requests this documentation specified above, this  
17 request will not delay or extend the requirement that Respondent must pay EPA's oversight  
18 cost bill within sixty (60) days of Respondent's receipt of the accounting nor will such a  
19 request suspend the accrual of Interest as specified in Paragraph 65 below

20 65. Respondent shall, within sixty days of receipt of such accounting, remit a certified  
21 or cashier's check for the amount of those costs. If payment is not made within sixty days,  
22 interest shall accrue from the date of the receipt of the accounting. The interest rate is the rate  
23 of interest on investments for the Hazardous Substances Superfund in Section 107(a) of  
24 CERCLA.

25 66. Checks should be made payable to the Hazardous Substances Superfund and  
26 should include the name of the site, the site identification number and the title of this Order.  
27 Checks should be forwarded to:  
28

Mellon Bank  
U.S. EPA Region X  
ATTN: Superfund Accounting  
P.O. Box 360903M  
Pittsburgh, PA 15251

67. Copies of the transmittal letter and check should be sent simultaneously to the EPA Project Coordinator.

68. Respondent agrees to limit any disputes concerning costs to accounting errors and the inclusion of costs outside the scope of this Order. Respondent shall identify any contested costs and the basis of its objection. All undisputed costs shall be remitted by Respondent in accordance with this Section. Disputed costs shall be paid by Respondent into an escrow account while the dispute is pending. Respondent bears the burden of establishing an EPA accounting error or the inclusion of costs outside the scope of this Order.

XXII. RESERVATIONS OF RIGHTS AND REIMBURSEMENT OF OTHER COSTS

69. EPA reserves the right to bring an action against Respondent under Section 107 of CERCLA for recovery of all response costs including oversight costs, incurred by the United States at the Site that are not reimbursed by Respondent, and any future costs incurred by the United States in connection with response activities conducted under CERCLA at the Site that Respondent is potentially liable for under CERCLA.

70. EPA reserves the right to bring an action against Respondents to enforce this Order, and to seek penalties pursuant to Section 109 of CERCLA, 42 U.S.C. §9609.

71. Except as expressly provided in this Order, each party reserves all rights and defenses it may have. Nothing in this Order shall affect EPA's removal authority or EPA's response or enforcement authorities including, but not limited to, the right to seek injunctive relief, stipulated penalties, statutory penalties, and/or punitive damages. Respondent reserves the right to assert any applicable attorney-client or attorney work product privilege for any document requested by EPA pursuant to this Order and EPA reserves the right to challenge any such privilege asserted by Respondent.

XXIII. EFFECTIVE DATE/MODIFICATION/MISCELLANEOUS

72. The effective date of this Order is the date it is executed by EPA.



1       73. This Order may be amended by agreement of EPA and Respondent. Amendments  
2 shall be in writing and shall be effective when executed by EPA. EPA Project Coordinators  
3 do not have the authority to sign amendments to this Order.

4       74. No informal advice, guidance, suggestions, or comments by EPA regarding  
5 reports, plans, specifications, schedules, and any other writing submitted by Respondent will  
6 be construed as relieving Respondent of its obligation to obtain such formal approval as may  
7 be required by this Order. All deliverables, required by this Order are, upon approval by EPA,  
8 incorporated into this Order.

9       75. In this Order, "day" always means calendar day and includes all Sundays and  
10 holidays.

#### 11                               XXIV. PROGRESS REPORTS AND MEETINGS

12       76. Respondents shall make presentations at, and participate in, meetings at the  
13 request of EPA during the conduct of the work. In addition to discussion of the technical  
14 aspects, topics will include anticipated problems or new issues. Meetings will be scheduled  
15 at EPA's discretion.

16       77. In addition to the deliverables set forth in this Order, Respondent shall provide  
17 monthly progress reports to EPA by the tenth (10th) day of the each month. At a minimum,  
18 with respect to the preceding month, these progress reports shall: (1) describe the actions  
19 which have been taken to comply with this Consent Order during that month; (2) include all  
20 QA/QC results of sampling and tests and all other data received by Respondent during the  
21 reporting period; (3) describe work planned for the next two (2) months with schedules  
22 relating such work to the overall project schedule; and (4) describe all problems encountered  
23 and any anticipated problems, any actual or anticipated delays, and solutions developed and  
24 implemented to address any actual or anticipated problems or delays.

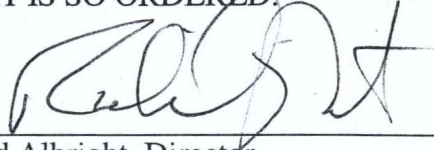
#### 25                               XXV. TERMINATION AND SATISFACTION

26       78. This Order shall terminate when Respondent demonstrates and certifies in writing  
27 to the satisfaction of EPA that all activities required under this Order, as amended by any  
28 modifications, including any additional work, payment of oversight costs, and any stipulated

1 penalties demanded by EPA, have been performed and EPA has approved the certification.  
2 This approval shall not, however, terminate Respondent's obligation to comply with Sections  
3 XIV, XXI, and XXII of this Consent Order.


4 79. The certification shall be signed by a responsible official on behalf of Respondent  
5 who shall make the following attestation: "I certify that the information contained in or  
6 accompanying this certification is true, accurate, and complete." For purposes of this Order  
7 a responsible official is an official who is in charge of a principal business function.

8  
9 IT IS SO ORDERED:

10  
11 BY:  DATE: 7/10/03  
12 Richard Albright, Director  
13 Office of Waste and Chemicals Management  
14 EPA Region 10



1 FOR RESPONDENT:  
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4 BY:  DATE: 6/30/03  
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# **STATEMENT OF WORK**

**INVESTIGATION OF DUWAMISH WATERWAY BANK,  
INTERTIDAL SEDIMENT, AND OUTFALLS**

**JORGENSEN FORGE PROPERTY**



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## **FIGURE**

Figure 1 Site Location Map

Figure 2 Site Map

## **TABLE**

Table 1 Schedule for Submission of Major Deliverables



## **I. PURPOSE**

The purpose of this Statement of Work (SOW) is to outline the general requirements to complete an investigation by Earle M. Jorgensen Company (Respondent) to determine whether the Jorgensen Forge Property located at 8531 East Marginal Way South in Seattle, Washington (the Site) and associated operations thereon are or have been a source of contamination that has been detected in sediment in the Duwamish Waterway adjacent to the Site. The objectives of the investigation is to provide sufficient information to determine if the Site or the current and former operations thereon are, or have been, a source of contamination to the sediment, determine the nature and extent of hazardous substances, if any, that may have been released at or from the Site, and to determine the threat to public health, welfare, or the environment from any such releases or threatened releases of hazardous substances at or from the Site.

This investigation will be conducted in two phases. The first phase of the investigation will include summarization of available information to: identify potential sources of contamination from current or historic operations at the Site or in the Site vicinity; to define potential contaminant pathways to the Duwamish Waterway; and identify data gaps. The results of the first phase of the investigation will be evaluated to determine the specific requirements for sampling and analysis to address the identified data gaps and determine the nature and extent of contamination in sediment.

## **II. BACKGROUND**

The Site is located at 8531 East Marginal Way South adjacent to the east bank of the Duwamish Waterway in Seattle, Washington, and is bordered to the north by the Boeing Plant 2 facility, to the south by the Boeing/Isaacson property and the east by East Marginal Way South. Surface sediment sampling conducted in the Duwamish Waterway as part of the Boeing Plant 2 RCRA Facility Investigation (RFI) detected polychlorinated biphenyls (PCBs) and metals in the sediment adjacent to the northwest corner of the Site (Boeing, 1998).

The Boeing Company (Boeing), in accordance with a Resource Conservation Recovery Act (RCRA) Section 3008(h) Consent Order between United States Environmental Protection Agency (EPA) and Boeing, is undertaking Corrective Action at Boeing Plant 2 facility, located directly north of the Site. EPA and Boeing have conducted, or are conducting, several investigations to determine the nature and extent of contamination in the sediment. EPA will provide the Respondent with the results of continuing investigations of sediment and/or possible sources of contaminants to the sediment.

EPA proposed that the Lower Duwamish Waterway (LDW) be added to the National Priorities List (NPL) of high priority cleanup sites in December 2000. The Site is within the boundaries of the LDW site. Also, in December 2000, Boeing, the Port of Seattle, the City of Seattle, and King County voluntarily entered into an Administrative Order on Consent (AOC) under Sections 104, 122(a), and 122(d)(3) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Washington State Model Toxics Control Act (MTCA), Ch. 70.105D RCW. The purpose of the CERCLA/MTCA AOC is to conduct a river-wide remedial

investigation/feasibility study (RI/FS) for the LDW site. In September 2001, the LDW site was added to the NPL.

The CERCLA/MTCA AOC Respondents submitted a Draft Technical Memorandum entitled *Data Analysis and Candidate Site Identification* in July 2002. The Draft Technical Memorandum identified nearshore sediments adjacent to the downstream northwest corner of the Site as a candidate site for early action based on elevated levels of PCBs and metals. Boeing is currently conducting an investigation on the northwest portion of the Site for PCBs in soil, groundwater, and sediment to determine the extent of a release of PCBs from an electric transformer located on the southwest corner of the Boeing Plant 2 facility.

### **III. STATEMENT OF WORK**

The investigation under this Statement of Work will be conducted in two phases. The first phase of the investigation will include a summary of existing data, historical operations, Site configuration, and delineation of other potential sources to identify specific data gaps that may need to be addressed by sampling and analysis. The second phase of the investigation is contingent on the results and findings of the first phase of the investigation.

#### **TASK 1 – COMMUNICATION AND MEETINGS**

This task delineates the requirements for the Respondent to manage both phases of the investigation and provide communication with EPA in a timely and consistent manner. This task will include, but not be limited to, the following:

- Preparation of a written project schedule for both phases of the investigation.
- Regularly scheduled meetings and/or conference calls between the Respondent and EPA.
- Preparation of progress reports submitted to EPA by the 10th of every month following the effective date of the AOC. At a minimum, progress reports shall contain the following information regarding the preceding reporting period:
  - A description of the actions which have been taken to comply with the AOC and SOW during the previous reporting period;
  - Summaries of new findings;
  - Summaries of all deviations from the approved Work Plan, Sampling and Analysis Plan (SAP), and Quality Assurance Project Plan (QAPP);
  - Summaries of all difficulties or anticipated difficulties in meeting the schedule or objectives set forth in the SOW and Work Plan;
  - Summaries of all solutions developed and implemented or planned to address any actual or anticipated problems or delays;
  - Changes in key personnel;
  - A description of all work planned for the next reporting period with schedules relating such work to the overall project schedule, including percentage of completion data;



- A list of sampling and testing reports and all other final data reports received by Respondent other than those generated as part of this AOC; and
  - A discussion of deviations and potential future deviations from the approved schedule.
- Distribution of deliverables. When modifying deliverables in accordance with EPA comments, Respondent shall provide a redline version of the revised deliverables and, if requested by EPA, shall also provide a written response to each comment, indicating how and where the comment was addressed.

## **TASK 2 – FIRST PHASE -SUMMARY OF AVAILABLE INFORMATION**

Available information will be compiled, as appropriate and necessary, to identify potential sources of contamination from current or historic operations at the Site, or in the Site vicinity; to define potential contaminant pathways to the Duwamish Waterway; and to identify data gaps. The results of the first phase of the investigation will be presented in the Environmental Sampling Work Plan (Task 3) and will form the basis for any additional investigations.

The information to be reviewed and evaluated, to the extent available, will be the following:

- Location and description of the Site.
- Site and surrounding area history.
- Current and potential future land use(s).
- Compilation and assessment of physical and chemical characterization data for:
  - Groundwater;
  - Soil (upland and on the bank);
  - Stormwater from outfalls;
  - Surface and subsurface sediment quality, grain size distribution, and total organic carbon (TOC).
- Location, description, and elevation of historical and existing storm water discharge outfalls.
- Delineation of outfall drainage areas.
- Bathymetric data, including information on bank elevations and slopes.
- Documentation of bank conditions (video survey).
- Duwamish Waterway current patterns and velocities.
- Deposition/resuspension areas and rates.
- Dredging records and surveys (specifically presenting records/bathymetry maps and post-dredging records/bathymetry maps or surveys, so that temporal changes in sediment accumulation can be assessed).

- Recent and current understanding of planned construction in or on the Duwamish Waterway (such as habitat restoration sites, fills, excavations).
- Structure locations (e.g. piers, docks, outfalls, riprap).
- Available survey coordinates (e.g. sediment, groundwater, and soil sample stations and locations) from past studies or other efforts.
- Summary of aerial photograph review.
- Review of existing source data:
  - Historical review of facility records;
  - Review of Boeing Plant 2 RCRA investigation results;
  - Review of other potential sources within the vicinity of the Site;
  - Interviews with key personnel that have worked at the Site.
- Identification of potential historical and on-going significant sources to the Duwamish Waterway from the Site or facilities within the vicinity of the Site.

The Respondent shall request information from the U.S. Army Corps of Engineers (the "Corps") and the Port of Seattle (the "Port"), on future land use planning, including dredging and filling plans.

### **TASK 3 – SECOND PHASE – ENVIRONMENTAL SAMPLING WORK PLAN**

The work required to complete the investigation of sources and nature and extent of contamination to sediment adjacent to the Site is not fully known at this time and is phased in accordance with the complex history of the Site and vicinity. The second phase of the investigation will be developed based on the results of the first phase of the investigation and may include environmental sampling of selected media for specific contamination. The location, analysis, and extent of the environmental sampling will be based on the results of the first phase of the investigation.

The Respondent shall submit for EPA review and approval an Environmental Sampling Work Plan after the first phase of the investigation, as defined in Task 2 of this SOW, has been completed. The Environmental Sampling Work Plan shall document the results of the first phase of the investigation, including available information that was reviewed, the identification of any data gaps, and a determination that the Site, is, or is not, a historical and/or current source of contamination to sediment in the Duwamish Waterway. The Environmental Sampling Work Plan will define the location, depth, media, and analytical methods to be conducted to fill the data gaps, if any. Attachments to the Environmental Sampling Work Plan shall include a SAP, QAPP, and a Health and Safety Plan (HASP).

The Environmental Sampling Work Plan shall specify key tasks to be accomplished to complete the investigation of the Site. The Environmental Sampling Work Plan shall clearly describe the overall management strategy for planning, performing, and documenting investigative activities. The responsibility and authority of all organizations and key personnel involved in performing



investigative tasks shall be outlined. The Environmental Sampling Work Plan shall discuss the timing and preparation of all documents described in Section IV of this SOW.

Elements of the Environmental Sampling Work Plan will include, but not be limited to, the following:

- A summary of the information review completed under Task 2.
- A data gap analysis that defines the known or suspected sources of contamination, the potential pathways for contaminant migrations, and areas where sampling and analysis will be necessary to address the data gaps identified at the Site.
- Project Management strategy and schedule, describing the strategy for managing investigative activities and achieving timely submittal of deliverables.
- A project schedule, including a timeline for completion of all investigative subtasks and for submittal to EPA of interim and final deliverables, including but not limited to the deliverables enumerated in Table 1 of this SOW.
- The composition and individual qualifications of a technical team or teams of personnel and/or subcontractors responsible for investigative subtasks.
- Listing of standards, criteria, and regulations applicable to the investigation.
- A Data Management Plan:
  - A unique identification code assigned to all monitoring and sampling stations;
  - Location data and descriptive information recorded and encoded of all monitoring and sampling stations described in standard latitude and longitude coordinates;
  - Analytical results and other observations correlated with the sampling station location and descriptive code using common identification codes assigned to station locations.
- A list and description of individual investigative activities necessary to address data gaps that may include:
  - Site survey;
    - Location, description, and elevation of historical and existing outfalls;
    - Bathymetric data, including information on bank elevations and slopes;
    - Documentation of bank conditions (video survey).
  - Physical Characterization, including:
    - Groundwater chemistry, flow direction and flux, and the effects of groundwater discharge on the Duwamish Waterway;
    - Sources and discharge points for storm and surface water;
    - Erosion and sloughing of banks and soil into the nearshore area;
    - Receiving water chemistry, currents and sediment transport
  - Environmental Media Sampling, including:
    - Surface and subsurface sediment samples;
    - Bank soil material sampling;

- Soil sampling;
- Groundwater sampling.

The Environmental Sampling Work Plan will be submitted to EPA in draft format for review and comment. Upon receipt of mutually agreeable comments, the Final Environmental Sampling Work Plan, with the schedules for performance of activities and submission of deliverables, shall be incorporated into this SOW.

#### **A) Sampling and Analysis Plan**

Respondent shall submit to EPA a SAP for review and approval in accordance with the document submittal schedule set forth in Section IV of this SOW. The purpose of the SAP is to provide the specifics of the environmental sampling program and to obtain the necessary information needed to fulfill the data gaps summarized in the Environmental Sampling Work Plan.

The SAP shall describe the sampling objectives, the rationale for the sampling approach (based in part on data gaps identified during the summary of existing data) and plans for data use, and shall provide a detailed description of sampling tasks, consistent with Puget Sound Estuary Program (PSEP) Protocols, or other protocols, as applicable. The SAP shall describe specifications for sample identifiers; operation of major sampling equipment (e.g., vessel operation and positioning); the type, number, and location of samples to be collected; the analyses to be performed; descriptions of sampling gear and methods to be used; documentation of samples; sample containers, collection and handling; and the sampling schedule.

The SAP shall describe the data quality objectives, and identify and describe measures that will be taken during performance of all sampling and analysis tasks to ensure fulfillment of the data quality objectives. Data quality objectives will reflect the criteria or threshold values used for potential future remedial decisions.

#### **B) Quality Assurance Project Plan**

Respondent shall submit to EPA a QAPP for investigation sampling and analysis activities for review and approval by EPA in accordance with the document submittal schedule set forth in Section IV of this SOW. The QAPP will be prepared in accordance with the *Guidance for Preparation of Quality Assurance Project Plans*, EPA Region 10, Quality Data Management Program, QA/R-5. Data quality objectives will reflect the criteria or threshold values used for potential future remedial decisions. The QAPP shall be developed in accordance with EPA guidance and the requirements of the EPA Contract Laboratory Program (CLP) and contain the following elements:

- Project Description.
- Project Organization and Responsibilities.
- Quality Assurance Objectives.
- Sampling location and frequency.
- Sample handling, storage, transport and Chain - of - Custody procedures.



- Sample parameters, preparation, and analysis methods, detection limits and volume of sample required for each media;
- Number of quality control samples, spikes and replicates required
- Calibration Procedures, References, and Frequency.
- Analytical Procedures.
- Internal Quality Control Checks.
- Data Reduction, Validation, and Reporting.
- Performance and System Audits.
- Preventative Maintenance.
- Specific Routine Procedures to Assess Data Precision, Accuracy, and Completeness.
- Corrective Action.
- Quality Assurance Reports to Management.

### **C) Health and Safety Plan**

Respondent shall submit to EPA for review a HASP for investigation sampling and analysis activities for review and approval in accordance with the document submittal schedule set forth in Section IV of this SOW. The HASP must be consistent with the requirements of CERCLA, the Occupational Safety and Health Administration (OSHA), and the Washington Safety and Health Administration (WSHA). The HASP shall identify specific monitoring and management responsibilities and activities to ensure the protection of human health and to promote safety for the activities associated with investigation sampling. The HASP shall be modified as necessary for changes or revisions to the SAP and QAPP.

## **TASK 4 – FINAL INVESTIGATION DATA SUMMARY REPORT**

In accordance with the document submittal schedule set forth in Section IV of this SOW, the Respondent shall submit to EPA an Investigation Data Summary Report presenting the results of investigation research, sampling, and analysis activities for EPA review and approval. The Investigation Data Summary Report shall include tabulated chemical, physical, and biological data, a sample identification matrix which relates sample identification numbers to sample locations, maps showing actual sample locations, field logs, laboratory data sheets, and a summary of field activities and methods, including a discussion of any discrepancies with the SAP and the effect of such changes upon data usability. All results shall be compared to appropriate regulatory criteria or screening levels defined in the Environmental Sampling Work Plan that will include Sediment Management Standards (SMS; WAC 173-204), MTCA regulations (MTCA; WAC 173-340), and other appropriate regulatory programs. If requested by EPA, Respondent shall also make available any additional records generated to support data collection, such as chain-of-custody forms. The Investigation Data Summary Report shall include a discussion of data validation conducted in accordance with the EPA-approved QAPP and addenda (if any).

Respondent shall also submit quality assured chemical and biological data in an electronic format consistent with the Washington State Department of Ecology February 2003 *Sediment*

*Quality Information System (SEDQUAL)*, Release 4.4, and any subsequent revisions to that document.

The report may include, as appropriate:

- A summary, including maps and illustrations of historical releases and sources of contamination.
- A summary, including maps and illustrations, of all historical groundwater data.
- A summary of physical properties affecting potential releases and migration of contamination in the Duwamish Waterway adjacent to the Site.
- Quality assurance analytical results of soil and sediment samples.
- A summary, including maps and illustrations, of the nature and extent of potential sources or contamination from the Site to the Duwamish Waterway.

#### **IV. SCHEDULE OF DELIVERABLES AND NOTIFICATIONS**

The schedule for notifications to EPA or submission of major deliverables to EPA under this SOW is described below. If the date for submission of any item or notification required by this SOW occurs on a weekend, state or federal holiday, the date for submission of that item or notification is extended to the next business day following the weekend or holiday. Where a deliverable due date is triggered by EPA notification, comments or approval, the starting date for the period shown is the date the Respondent received such notification, comments or approval by certified mail, return receipt requested, unless otherwise noted below. Where triggered by EPA's receipt of a deliverable, the starting date for the period shown is the date EPA receives the deliverable by certified mail, return receipt requested or the date of EPA signature on a hand-delivery form.



**Table 1**

**Schedule for Submission of Major Deliverables**

|    | <b><i>Deliverable</i></b>              | <b><i>Due Date<sup>a</sup></i></b>  |
|----|--|---|
| 1. | Written Progress Reports               | Monthly beginning the 10th day of the month after the AOC <sup>c</sup> effective date |
| 2. | Draft Environmental Sampling Work Plan | 60 days <sup>b</sup> after the AOC <sup>c</sup> effective date                        |
| 3. | Investigation Activities               | Initiate 30 days <sup>b</sup> after EPA approval of Environmental Sampling Work Plan  |
| 4. | Investigation Data Summary Report      | To be defined in the Environmental Sampling Work Plan                                 |

<sup>a</sup> Due dates shown are for initial draft deliverables. Revised deliverables (including one redline version) are due 45 days from receipt of EPA comments. Documents become final upon approval by EPA..

<sup>b</sup> Days are calendar days. If due dates fall on a weekend or state or federal holiday, deliverables will be submitted to EPA on the next business day.

<sup>c</sup> AOC (Administrative Order on Consent) is effective upon signature by both EPA and Respondent.